



# UNITED STATES PATENT AND TRADEMARK OFFICE

EO

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,990	11/12/2003	Peter A. Habitz	BUR920020122US1	2989
30678	7590	07/20/2005	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ LLP SUITE 800 1990 M STREET NW WASHINGTON, DC 20036-3425			WACHSMAN, HAL D	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 07/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

10/608990

EXAMINER
----------

ART UNIT	PAPER
----------	-------

07162005

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Hal D Wachsman  
Primary Examiner  
Art Unit: 2857

1. The reply filed on 5-31-05 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s):

- a) The specification amendment to replace paragraph 21 is improper under 37 C.F.R. 1.121 because the replacement paragraph does not show the deletion of the square shaped drawing referred to in paragraph 1.b) of the prior Office action. Appropriate correction is required.
- b) All of the remaining specification amendments in the reply are improper under 37 C.F.R. 1.121 because ***the subject matter in the replacement paragraphs do not exist in the specification at the locations identified.***
  - 1) The replacement paragraph for paragraph 29 contains a heat equation however in the specification of record paragraph 0029 contains Table I; Analogies Between Electrical and Thermal Systems.
  - 2) The replacement paragraph for paragraph 30 refers to the temperature gradient. However, in the specification paragraph 0030 contains Table II Analogies Between Poisson's Equation of Electrostatics and the Heat Equation of Thermostatics.
  - 3) The replacement paragraph for paragraph 35 states "In accordance with the above discussion, tools for the simulation and analysis...". However, in the specification paragraph 0035 states "we note that permittivity..is close to zero within....".
  - 4) The replacement paragraph for paragraph 39 cites the voltage gradient. However, paragraph 0039 in the specification states "The approximation discussed above for the thermal case....".

5) The replacement paragraph for paragraph 42 states "we note that permittivity....". However, paragraph 0042 in the specification starts off with " $G = F \cdot C \dots$ ".

6) The replacement paragraph for paragraph 45 states the symbol for thermal conductivity however paragraph 0045 in the specification contains equation (3a) along with definitions of the variables being used.

7) The replacement paragraph for paragraph 48 states "The approximation discussed above for the thermal case....". However, paragraph 0048 in the specification contains equations (3b) and (3c).

8) The replacement paragraph for paragraph 56 states the variable representing capacitances. However, paragraph 0056 in the specification contains a writing of equation (3a) along with the definitions for the variables being used.

9) The replacement paragraph for paragraph 58 states "The situation discussed above is further illustrated in Fig. 1a.....". However, paragraph 0058 in the specification contains an expression of equation (3d).

10) The replacement paragraph for paragraph 60 states the expression for the temperature difference at the nth conductor. However, paragraph 0060 in the specification contains a rewriting of equation (3d).

11) The replacement paragraph for paragraph 62 states the variable representing thermal conductance of conductor i. However, paragraph 0062 in the specification contains an equation for  $I_{RMS}$ .

12) The replacement paragraph for paragraph 64 states "In particular, the case of three conductors...". However, paragraph 0064 in the specification states "The power limit of Equation (4) is used...".

13) The Amendments to the Specification section of the reply state "Please replace paragraph 97 with the following amended paragraph" and "Please replace paragraph 98 with the following amended paragraph". However, there are no paragraphs numbered as 97 and 98 in the specification and the highest numbered paragraph in the specification is paragraph number 0077.

Due to the confusion that now exists with respect to what now constitutes the specification of record as a result of the problems noted above, **the Applicant should submit a substitute specification in accordance with 37 C.F.R. 1.125(b)** which appropriately corrects the specification objections already noted in the prior Ex Parte Quayle Office action as well as any matters cited in this communication.

c) As was already stated in paragraph 1.b) of the prior Office action, the specification is objected to because paragraphs 0035, 0039, 0074 and 0075, each contain a square shaped drawing between words of the text. In addition, paragraph 0069 contains a rectangular totally darkened background with white lettering which is improper for a specification. Also, paragraph 0046 states "Additional examples would included..." however was this intended to be "Additional examples would have included.." This same paragraph also states "...due the ith conductor..." however was this intended to be "...due to the ith conductor...". Appropriate correction is required.

2. See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D. Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Application/Control Number: 10/605,990

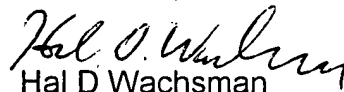
Art Unit: 2857

Page 8  
7-16-05

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hal D Wachsman  
Primary Examiner  
Art Unit 2857

HW  
July 16, 2005